UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,119	03/30/2006	Laure Cloarec-Blanchard	SERVIER 493 PCT	5495

25666 7590 08/22/2008

THE FIRM OF HUESCHEN AND SAGE
SEVENTH FLOOR, KALAMAZOO BUILDING
107 WEST MICHIGAN AVENUE
KALAMAZOO, MI 49007

EXAMINER
OH, TAYLOR V

ART UNIT	PAPER NUMBER
1625	

MAIL DATE	DELIVERY MODE
08/22/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,119	CLOAREC-BLANCHARD ET AL.	
	Examiner	Art Unit	
	Taylor Victor Oh	1625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/07,3/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

The Status of Claims :

Claims 12-24 are pending.

Claims 12-24 are rejected.

DETAILED ACTION

1. Claims 12-24 are under consideration in this Office Action.

Priority

2. It is noted that this application is a 371 of PCT?FR04/02489(10/01/2004), which has a foreign priority document, France 0311595.

Drawings

3. None.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-20,22 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 16-18, and 20, the phrase " compound (A)" is recited. This expression is vague and indefinite because the skilled artisan in the art is unable to understand what is meant by the phrase " compound (A)" without specifying the formula of " compound (A)" .

In claims 22 and 24, the phrase " associated with " is recited. This expression is vague and indefinite because how illnesses or thrombo-embolic disorder are associated with atherosclerosis, hypertension , diabetes and heart failure or auricular fibrillation and invasive surgical procedures. Therefore, an appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

In the claim 23, the term " preventing" is recited. However, the specification does not describe how to prevent a disorder of the vascular , cardiovascular or neurovascular system or a thrombo-embolic disorder. Also, there are no showings of any evidence for preventing the disorder of the vascular , cardiovascular or neurovascular system or a thrombo-embolic disorder at the same time by using the claimed compound. This description is essential to the claimed

invention because it allows to distinguish identifying characteristics sufficient show that the applicant was in possession of the claimed invention, and the claim ,as a whole, may not be adequately described where the invention is described solely in terms of a process of its conversion coupled with its function and there is no described or art-recognized correlation or relationship between the structure of the invention and its functional language. Furthermore, the contemporary knowledge of the art does not teach " how to prevent " any disorder of the vascular , cardiovascular or neurovascular system or a thrombo-embolic disorder. If we could prevent all the possible permutations and combinations of the disorder of the vascular , cardiovascular or neurovascular system or the thrombo-embolic disorder, nobody would be sick. In addition, more than routine experimentation is involved. See In re Armbruster 185 USPQ 204 (CCPA 1985) and Angstadt et al. , 190 USPQ 152 (CCPA 1990). Therefore, the specification has failed to support enablement for the method for preventing the disorder of the vascular , cardiovascular or neurovascular system or the thrombo-embolic disorder. Therefore, an appropriate correction is required.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over.

Ogletree et al (US 2003/0109543) in view of Lavielle et al (US 5,472,979).

Ogletree et al et al (US 6,689,809) discloses as shown below (see abstract):

> A method is provided for inhibiting platelet aggregation and thrombus formation by administering to a patient an ADP-receptor blocking antiplatelet drug, such as clopidogrel, in combination with a thromboxane A_2 receptor antagonist, such as ifetroban, and optionally a cholesterol lowering drug, such as an HMG CoA reductase inhibitor, for example, pravastatin.

> **[0029]** Furthermore, in accordance with the present invention, a method is provided for preventing or inhibiting onset of ischemic events including cardiovascular, cerebrovascular and peripheral vascular events, such as myocardial infarction, unstable and stable angina, acute reocclusion after percutaneous transluminal coronary angioplasty (PTCA), restenosis after PTCA, thrombotic stroke, transient ischemic attack, reversible ischemic neurological deficit, and intermittent claudication wherein a combination of an ADP-receptor blocking antiplatelet drug, such as clopidogrel, and a thromboxane A_2 receptor antagonist, such as ifetroban, and optionally a cholesterol lowering agent, is administered in therapeutic effective amounts.

(see page 2 , paragraph 0029)

> **[0034]** The term "clopidogrel" as employed herein includes clopidogrel in its free acid form, ester thereof, including the acetate, and/or pharmaceutically acceptable acid addition salts thereof, including the hydrogen sulfate salt.

(see col. 2 , paragraph 0034).

However, the instant invention differs from the prior art in that the compound (A) of the formula (I) is unspecified.

Lavielle et al teaches the followings:

The present invention relates to a new 1,2,3,4-tetrahydronaphthalene compounds.

More particularly, the compounds described in the present invention possess anti-thromboxane A_2 properties which are equally good as antagonists of the thromboxane A_2 (TXA_2) receptors and as inhibitors of the activity of the enzyme responsible for the synthesis of thromboxane A_2: thromboxane A_2-synthase.

Thromboxane A_2 is a metabolite of arachidonic acid produced by blood platelets, which brings about a considerable constriction of blood vessels and induces aggregation of the platelets. The production of thromboxane A_2 is increased in conditions such as angina pectoris or strokes and it plays a very important role in all the processes leading to thrombotic conditions.

It was thus particularly advantageous to synthesize substances capable of inhibiting the pro-aggregating and vasoconstrictive activities of thromboxane A_2, either as thromboxane A_2-receptor antagonists or as thromboxane A_2-synthase inhibitor.

Besides the fact that they are novel, the compounds described in the present invention possess markedly more intense pharmacological properties than those of the other compounds described in the prior art.

They are thus useful as thromboxane A_2 antagonists and as thromboxane A_2-synthase inhibitors in the treatment or prevention of diseases involving thromboxane A_2 such as, for example, cardio- and cerebrovascular diseases and thrombotic diseases, as well as the vascular complications which accompany the pathological conditions involving either thromboxane A_2 or substances which interact with the TXA_2 receptor (for example such as the vascular complications in diabetes). These thromboxane A_2 antagonists also possess protective properties with respect to the gastric wall

(see col. 1 , lines 1-37).

Furthermore, the following table discloses a pharmaceutical composition containing

EXAMPLE 1

3-{6-[(4-Chlorophenylsulfonyl)amino]-2-methyl-5,6,7,8-tetrahydronaphth-1-yl} propionic acid, sodium salt

(see col. 11 , example 1)

EXAMPLE 24: Pharmaceutical composition

Formula for the preparation of 1000 tablets containing a 10 mg dose

Compound of Example 1	10 g
Hydroxypropyl cellulose	2 g
Wheat starch	10 g
Lactose	100 g
Magnesium stearate	3 g
Talc	3 g

(see col. 27., lines 1-15).

Ogletree et al expressly describes a composition based on an ADP-receptor inhibitor, such as clopidogrel and a thromboxane A2 antagonist, such as ifetroban useful for the treatment of cardiovascular diseases. Similarly, Lavielle et al does teach the

3-{6-[(4-Chlorophenylsulfonyl)amino]-2-methyl-5,6,7,8-tetrahydronaphth-1-yl} propionic acid, sodium salt ,which is a well-known

thromboxane A2 antagonist used as an antithrombotic in cardiovaswcualr diseases.

Therefore, it would have been obvious to the skilled artisan in the art to be motivated to incorporate the Lavielle et al's thromboxane A2 antagonist as an alternative to ifetroban into the

Ogletree et al composition. This is because both prior art disclose the composition for the same utility of the treatment of cardiovascular diseases and the skilled artisan in the art would expect such a combination to be feasible and successful as guidance shown in the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taylor Victor Oh whose telephone number is 571-272-0689. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Taylor Victor Oh, MSD,LAC
Primary Examiner
Art Unit: 1625

/Taylor Victor Oh/

Primary Examiner, Art Unit 1625

8/20/08